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09/824,280	04/02/2001	Kenichiro Yamauchi	MTS-3246US	9237

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EXAMINER

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/824,280

Applicant(s)

YAMAUCHI ET AL.

Examiner

James A. Fletcher

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date: 3 & 6
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6-8, and 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ottesen et al (5,721,815).

**Regarding claim 1**, Ottesen et al disclose a transfer rate controller compromising:

- means of inputting a picture or sound stream (Col 14, lines 58-62 “an input buffer typically provided in a subscribing customer’s set-top control system 62 for the purpose of buffering packets of video segments 48 received from the multimedia server 30”);
- means of controlling a transfer rate of the stream by adjusting an interval between packets respectively belonging to each frame of the input stream (Col 21, lines 25-31 “The set-top controller...communicates...to regulate the

rate at which the compressed video signal stream is received from the multimedia server”);

- means of outputting the stream output from the packet rate adjusting means (figs 4 and 11, item 44 “Communication Channel”).

**Regarding claim 2,** Ottesen et al disclose a transfer rate controller wherein the packet rate adjusting means changes the frame rate (Col 21, lines 6-8 “Moving outside of the presentation control window will generally require retransmission of previously transmitted compressed video segments”).

**Regarding claim 3,** Ottesen et al disclose a transfer rate controller wherein the packet rate adjusting means makes no change in the frame rate (Col 21, lines 1-5 “As long as the viewer operates within the...presentation control window 90, each of the 7,200 compressed video segments 48 comprising the two-hour movie is transmitted only once”).

**Regarding claim 4,** Ottesen et al disclose a transfer rate controller wherein the stream has a plurality of multiplexed data (Col 8, lines 62-65 “A typical multiplexed bitstream comprises a video signal stream portion, an audio signal stream portion, and may further include other information signal stream portions”).

**Regarding claim 6,** Ottesen et al disclose a transfer rate controller wherein the stream is an MPEG transport stream (Col 7, lines 10-15 “The multimedia information transmitted from the multimedia server 30 to a plurality of set-top control systems 62 is preferably transmitted in a digitally compressed format. A compression algorithm standard suitable for use by the novel media-on-demand communication system is one

developed by the Moving Pictures Experts Group, and is generally referred to as an MPEG coding standard”) and the packet is a transport packet (Col 9, lines 4-7 “The discrete source program segments that comprise the subscriber-selected multimedia program bitstreams are preferably transmitted as packets of segments”).

**Regarding claim 7**, Ottesen et al disclose a transfer rate controller wherein the packet rate adjusting means controls a transfer rate according to a warning indicative that an overflow is likely to occur in a buffer of a decoder (Col 21, lines 25-33 “The set-top controller 64 preferably communicates control signals to the multimedia server 30 over a server control line or channel 78 of the communication channel 44 to...regulate the rate at which the compressed video signal stream is received from the multimedia server 30 over the data channel 75 to avoid an input buffer 66 overflow condition”).

**Regarding claim 8**, Ottesen et al disclose a decoding system comprising:

- a buffer for temporarily storing an inputted stream (Fig 11, item 66 “Input Buffer”); and
- decoding means of inputting the stream from the buffer and decoding and outputting the stream (Fig 11, item 74 “Decoder”).
- means of monitoring a free space of the buffer and issuing a warning to the transfer rate controller if an overflow is likely to occur in the buffer (Col 21, lines 25-33 “The set-top controller 64 preferably communicates control signals to the multimedia server 30 over a server control line or channel 78 of the communication channel 44 to...regulate the rate at which the compressed

video signal stream is received from the multimedia server 30 over the data channel 75 to avoid an input buffer 66 overflow condition”).

**Regarding claim 10**, Ottesen et al disclose an information aggregate comprising a program and/or data for allowing a computer to carry out all or some functions of all or some means of the transfer rate controller or the decoding system (Col 19, lines 57-61 “The set-top control system 62 preferably includes a set-top controller 64 that communicates with an input buffer 66, output buffer 72, and a decoder 74 to coordinate decoding of the received coded video signal stream 46 for presentation on a local monitor or television”).

**Regarding claim 11**, Ottesen et al disclose a transmitting medium for transmitting an MPEG transport stream outputted from the transfer rate controller (Fig 3, item 44, “Communication Channel” and Col 7, lines 10-15 “The multimedia information transmitted from the multimedia server 30 to a plurality of set-top control systems 62 is preferably transmitted in a digitally compressed format. A compression algorithm standard suitable for use by the novel media-on-demand communication system is one developed by the Moving Pictures Experts Group, and is generally referred to as an MPEG coding standard”).

**Regarding claim 12**, Ottesen et al disclose a recording medium for recording an MPEG transport stream outputted from the transfer rate controller (Col 21, lines 53-56 “the compressed video segments 48 corresponding to portions of the multimedia program defined within the presentation control window 90 are locally stored in the DASD 68”).

**Regarding claim 13**, Ottesen et al disclose a method of transferring a data stream from a reproducing device to a decoder, comprising the steps of:

- transmitting over a transmission medium, to the decoder from the reproducing device, the data stream (Col 5, line 65 - Col 6, line 2 "a multimedia communication system...configured to communicate multimedia programs to a plurality of set-top control systems concurrently over a communications channel");
- receiving over the transmission medium, from the reproducing device, the data stream (Col 6, lines 2-6 "the multimedia server<sup>30</sup> transmits a video program...as a customized series of compressed digital source program segments to a subscribing customer's set-top control system", at a predetermined data transfer rate (Col 13, lines 35-38 "the multimedia server 30 preferably asynchronously transmits approximately ten megabytes of multimedia program information each minute to some 600 subscribing customer locations");
- storing the received data stream in a temporary buffer (Col 14, lines 58-60 "an input buffer typically provided in a subscribing customer's set top control system");
- monitoring, within the decoder, a data overflow condition in the buffer;
- transmitting, from the decoder to the reproducing device, a warning signal indicating the data overflow condition; and

- adjusting, within the reproducing device, the data transfer rate of the data stream from the reproducing device to the decoder, whereby the decoder receives the data stream at a reduced data transfer rate to prevent buffer overflow (Col 21, lines 25-33 "The set-top controller 64 preferably communicates control signals to the multimedia server 30 over a server control line or channel 78 of the communication channel 44 to...regulate the rate at which the compressed video signal stream is received from the multimedia server 30 over the data channel 75 to avoid an input buffer 66 overflow condition").

**Regarding claim 14**, a method of transferring a data stream in which transmitting and receiving the data stream includes transmitting and receiving an MPEG data stream (Col 7, lines 10-15 "The multimedia information transmitted from the multimedia server 30 to a plurality of set-top control systems 62 is preferably transmitted in a digitally compressed format. A compression algorithm standard suitable for use by the novel media-on-demand communication system is one developed by the Moving Pictures Experts Group, and is generally referred to as an MPEG coding standard").

**Regarding claim 15**, a method of transferring a data stream in which the steps of receiving and transmitting includes, respectively, receiving the data stream and transmitting the warning signal between the reproducing device, which is housed in one unit, and the decoder, which is housed in a separate unit (Col 21, lines 25-33 "The set-top controller 64 preferably communicates control signals to the multimedia server 30 over a server control line or channel 78 of the communication channel 44 to...regulate



the rate at which the compressed video signal stream is received from the multimedia server 30 over the data channel 75 to avoid an input buffer 66 overflow condition”).

**Regarding claim 16**, a method of transferring a data stream in which the step of receiving includes receiving MPEG transport packets and the step of adjusting includes adjusting an interval between each transport packet (Col 7, lines 10-15 “The multimedia information transmitted from the multimedia server 30 to a plurality of set-top control systems 62 is preferably transmitted in a digitally compressed format. A compression algorithm standard suitable for use by the novel media-on-demand communication system is one developed by the Moving Pictures Experts Group, and is generally referred to as an MPEG coding standard” and Col 21, lines 25-33 “The set-top controller 64 preferably communicates control signals to the multimedia server 30 over a server control line or channel 78 of the communication channel 44 to...regulate the rate at which the compressed video signal stream is received from the multimedia server 30 over the data channel 75 to avoid an input buffer 66 overflow condition”).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. *Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al as applied to claims above.*

**Regarding claim 5** Ottesen et al does not specifically disclose a transfer rate controller wherein the stream has no multiplexed data.

The examiner takes official notice that it is notoriously well known not to transmit auxiliary data during times of trick play. Audio, subtitles, and other non-visual data is not intelligible during fast play, reverse play at any speed, and pause, and is therefore not required by the viewer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to not include auxiliary data in the stream during trick play, and therefore not multiplex the data stream.

**Regarding claim 9**, Ottesen et al suggest a medium for storing a program and/or data for allowing a computer to carry out all or some functions of all or some means of the transfer rate controller or the decoding system (Col 19, line 46 "Intelligent Set-Top Control System" and Fig 11, item 64 "Set-Top Controller"), but do not specifically disclose that a medium that is able to be processed by a computer.

The examiner takes official notice that modern products that control and/or store large amounts of data are notoriously well known to be processor based and software driven, and that such software is notoriously well known to be stored in a medium such as read-only memory, magnetic or optical disc, or solid state non-volatile memory devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a medium for storage of the operating program in the system.

6. *Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen as applied to claims above, and further in view of Blatter (6,584,275).*

**Regarding claim 17**, Ottesen et al disclose a method of transferring a data stream (Col 5, line 65- Col 6, line 2 “a multimedia communication system...configured to communicate multimedia programs to a plurality of set-top control systems 62 concurrently over a communication channel 44”), but do not specifically disclose that stream is transported over an IEEE 1394 bus.

Lownes et al teach that the 1394 bus is useful for transferring a multimedia data stream (Col 3, line 64- Col 4, line 1 “The IEEE 1394 bus is described in a technical standard IEEE 1394 Standard for a High Performance Serial Bus IEEE STD 1394-1995, Aug. 30, 1996. This bus includes an isosynchronous data transfer mode and an asynchronous data transfer mode.”).

As taught by Lownes et al, IEEE 1394 is a recognized standard for transporting the type of data used by Ottesen et al, and is well known, widely used, and commercially available. The use of such a recognized transport stream would reduce development time, and provide compatibility with existing equipment at the user's location.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ottesen et al to specify an IEEE 1394 bus as the stream transport bus.

**Regarding claim 18**, Ottesen et al disclose a method of transferring a data stream in which the step of receiving includes receiving MPEG transport packets as

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analyzed and discussed above, but do not suggest the step of storing includes converting the received MPEG transport packets into a packetized elementary stream (PES).

Lownes et al teach that MPEG transports can be converted into a packetized elementary stream for recording (Col 4, lines 10-15 "The transport decoder 102 converts the received transport packets containing compressed bit-stream data from the communication channel bit stream into compressed video data, which may be, for example, packetized elementary stream (PES) packets according to MPEG-2 standard" and Col 9, lines 37-41 "the VCR control panel...includes a status window 510 and control buttons for rewind, 512; stop, 514; fast forward, 516; play, 518; pause, 520; and record, 532").

As taught by Lownes et al, conversion of an incoming MPEG stream into PES packets for recording is well known, widely used, and commercially available means for providing a signal for recording. Using PES packets shortens development time and provides compatibility with the users existing equipment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ottesen to record PES packets.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached at (703) 308-9644.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF  
March 17, 2004